

IN THE SPECIFICATION

Please replace the paragraph beginning at page 15, line 5, with the following rewritten paragraph:

For example, if the reception terminal 11 is connected to LAN 1 different from LAN 1 of the transmission side terminal 11 (a so-called long communication distance case through connection via WAN 2), a response time becomes longer than if the reception side terminal 11 is connected to the same LAN 1 (a short communication distance). Therefore, for example, if the communication is restricted in the same LAN 1, the transmission grant judgment unit 21 judges from the measured response time whether the reception side terminal 11 is connected to the same LAN 1 as that of the transmission side terminal 11, and judges, from this judgment result and the authentication result of the reception side terminal 11, whether data transmission can be granted.

Please replace the paragraph beginning at page 16, line 19, with the following rewritten paragraph:

The random challenge transmission control unit 32 transmits the random challenge supplied from the random challenge generation unit 31, to the side reception terminal 11 via the communication unit 23. The random challenge transmission control unit 32 also receives a message (hereinafter called an RC reception message) to the effect that the random challenge is received, the RC reception message being transmitted from the reception side terminal 11, and notifies a command transmission control unit 34 of the reception of the RC reception message, respectively via the communication unit 23.

Please replace the paragraph beginning at page 17, line 13, with the following rewritten paragraph:

When the reception of the RC reception message is notified from the random challenge transmission control unit 32, the command transmission control unit 34 transmits a command requesting for a response (hereinafter called a response request command) to the reception side terminal 11 via the communication unit 23, in accordance with an instruction from a judgment unit 35.

Please replace the paragraph beginning at page 18, line 20, with the following rewritten paragraph:

A random challenge reception control unit 41 receives via the communication unit 23 the random challenge transmitted from the transmission side terminal 11 (more correctly, the transmission side transmission grant judgment unit 21) and supplies it to the authentication data generation unit 42) 42. The random challenge reception control unit 41 also transmits via the communication unit 23 the RC reception message (message to the effect that the random challenge is received) to the transmission side terminal 11, and notifies a reception message transmission control unit 44 of the transmission of the RC reception message.

Please replace the paragraph beginning at page 21, line 27, to page 22, line 10, with the following rewritten paragraph:

At Step S11 the judgment unit 35 judges whether the response time of the reception side terminal 11, measured by the response time measurement unit [[3]] 36, relative to the response request command transmitted at the i-th sequence, is longer than the predetermined time TL. The time TL is, for example, a communication time taken to communicate between terminals connected to the same LAN 1. Namely, if the response time is longer than the time TL, it can be judged that the reception side terminal 11 is connected to LAN 1 different from

that of the transmission side terminal 11, whereas if the response time is not longer than the time TL (including response time = time TL), it is can be judged that the reception side terminal 11 is not connected to the same LAN 1 (the communication distance can be judged).

Please replace the paragraph beginning at page 22, line 15, with the following rewritten paragraph:

At Step S13 the command transmission control unit 34 judges whether the counter i is $N + 1$. If it is judged that the counter i is not $N + 1$, the flow returns to Step S6 after a lapse of a predetermined time. If it is judged at Step S13 that the counter i is $N + 1$ (namely, if the response request command was transmitted N times), or it is judged at Step S10 that the reception side terminal 11 is not an authorized apparatus of the information communication system, then the flow advances to Step S14 whereat this effect is notified to the judgment unit [[3]] 35. Then, the judgment unit 35 rejects the data transmission to the reception side terminal 11 and controls the communication unit 23 to reject the transmission of the data stored in the transmission data storage unit 24 to the reception side terminal 11.

Please replace the paragraph beginning at page 23, line 15, with the following rewritten paragraph:

At Step S21 the random challenge reception control unit 41 of the response control unit 22 of the terminal 11 (the reception side terminal [[1]] 11) receives via the communication unit 23 the random challenge transmitted from the transmission destination terminal 11 (at Step S2), and supplies it to the authentication data generation unit 42. At Step S22 the authentication data generation unit 42 makes the random challenge supplied from the random challenge reception control unit 41 be subjected to the Keyed-Hash process similar to the Keyed-Hash process (at Step S3) at the transmission grant judgment unit 21 (expected

value generation unit 33) of the transmission side terminal 11, to generate the authentication data and transmit it to the response message generation unit 43.

Please replace the paragraph beginning at page 24, line 25, to page 25, line 4, with the following rewritten paragraph:

At Step S28 the response message transmission control unit 44 of the response control unit 22 of the reception side terminal 11 judges whether the judgment completion message transmitted from the transmission side terminal 11 (at Step S16) is received. If it is judged that the judgment completion message is not received in a predetermined time, the flow advances to Step S29 whereat the response message transmission control unit 44 increments the counter j by 1 and at Step S30 judges whether the counter $j = N + 1$.

Please replace the paragraph beginning at page 26, line 26, to page 27, line 2, with the following rewritten paragraph:

Furthermore, in the above description, although the transmission side terminal 11 generates the random challenge (Step S1) and provides it to the reception side terminal 11 (Step S2), the reception side terminal may generate the random challenge and provide it to the transmission side terminal 11.

Please replace the paragraph beginning at page 28, line 7, with the following rewritten paragraph:

Fig. 9 shows an example of the structure of the transmission grant judgment unit 21 and Fig. 10 shows an example of the structure of the response control unit 22, respectively for when the reception side terminal 11 authenticates the transmission side terminal 11.

Please replace the paragraph beginning at page 28, line 16, with the following rewritten paragraph:

An expected value generation unit 52 makes the random challenge supplied from the random challenge generation unit 51 be subjected to, for example, a Keyed-Hash process similar to the case of a reception side terminal 11 (authentication data generation unit 73), by using the secret key shared with the reception side terminal 11, generates the expected value QR for the authentication data RR of the reception side terminal 11 (the expected value QR having the same value as the corresponding authentication data RR), and supplies it to a response authentication unit 57.

Please replace the paragraph beginning at page 29, line 27, to page 30, line 5, with the following rewritten paragraph:

In accordance with the authentication result of the reception side terminal 11 and the judgment result of the communication distance, the control judgment unit 58 judges whether data transmission to the reception side terminal 11 is granted or not. In accordance with this judgment, the control judgment unit 58 controls the communication unit 23 to transmit the data stored in the transmission data storage unit 24 to the reception side terminal 11.

Please replace the paragraph beginning at page 30, line 15, with the following rewritten paragraph:

An expected value generation unit 72 makes the random challenge RC contained in the control command and received at the control response communication control unit 71 be subjected to a Keyed-Hash process similar to the case of the transmission side terminal 11 (authentication data generation unit 53), by using the secret key shared with the transmission side terminal 11, generates the expected value QS for the command authentication data RS of

the transmission side terminal 11 (the expected value QS having the same value as the corresponding authentication data RS), and supplies it to a command authentication unit 76.

Please replace the paragraph beginning at page 35, line 23, with the following rewritten paragraph:

Description will be made later on the merit of confirming the sequence number Cj of the response message MCR and the sequence ~~umber~~ umber Ci of the response request command MC.

Please replace the paragraph beginning at page 37, line 23, to page 38, line 5, with the following rewritten paragraph:

If it is judged at Step S62 that the value of the counter i is equal to or larger than k (if the response whose response time RTT is equal to or shorter ~~then~~ than the prescribed time TL is not obtained even if the response time RTT measurement is performed k times), the flow advances to Step S65 whereat the control judgment unit 58 notifies the control command communication control unit 54 of that the reception side apparatus is an apparatus outside of the local network (an apparatus not connected to the same LAN 1 as that of the transmission side terminal 11). The control command communication control unit 54 transmits to the reception side apparatus the end command CC indicating that authentication of the reception side apparatus failed.

Please replace the paragraph beginning at page 38, line 6, with the following rewritten paragraph:

If it is judged at Step S60 that the response authentication data RRj does not match with its expected value QRi, the flow advances to Step S66 whereat the control judgment unit 58 notifies the control command communication control unit 54 of that the reception side

apparatus is an unauthorized apparatus. The control command communication control unit 54 transmits to the reception side apparatus the end command CC indicating that authentication of the reception side apparatus failed.